ABSTRACT OF THE DISCLOSURE

A method and system for probabilistic defect isolation in a set that comprises a plurality of resources, each resource in the plurality of resources having at least one characteristic, each resource in the plurality of resources being defined to be good if the characteristic of that resource meets a predetermined criterion and being otherwise defined to be bad. The method comprises assigning to each resource in a group of the plurality of resources an initial probabilistic estimate of the likelihood that that resource is good. The method also comprises assigning a probabilistic estimate of the likelihood that the group of the plurality of resources might accidentally pass the test and iteratively performing the test on various groups of the plurality of resources. Further, the method comprises determining a probabilistic estimate that each of the resources in the group of the plurality of resources is good based on the performance of the test on the group of the plurality of resources.